

DEVELOPMENT AND STANDARDIZATION OF THE BEHAVIOR DISORDER CHARACTERISTICS INVENTORY (BDCI) FOR ADOLESCENT STUDENTS IN UTTAR PRADESH

DR. JAYA BHARTI

ASSISTANT PROFESSOR, DEPARTMENT OF PSYCHOLOGY, A.N.D.N.N.M.M. (C.S.J.M. UNIVERSITY), KANPUR,
EMAIL: jayabharti_kn18@csjmu.ac.in, ORCID ID: 0000-0003-3225-1317

PROF. HITAISHI SINGH

PROFESSOR, DEPARTMENT OF HOME SCIENCE, A.N.D.N.N.M.M. (C.S.J.M. UNIVERSITY), KANPUR

MS. MANISHA SHARMA

RESEARCH SCHOLAR, DEPARTMENT OF PSYCHOLOGY, A.N.D.N.N.M.M. (C.S.J.M. UNIVERSITY), KANPUR

MS. HARSHIKA SINGH

RESEARCH SCHOLAR, DEPARTMENT OF PSYCHOLOGY, A.N.D.N.N.M.M. (C.S.J.M. UNIVERSITY), KANPUR

MS. PRACHI VERMA

ASSISTANT PROFESSOR, DEPARTMENT OF PSYCHOLOGY, A.N.D.N.N.M.M. (C.S.J.M. UNIVERSITY), KANPUR

DR. SANDEEP KUMAR VERMA

ASSISTANT PROFESSOR, DEPARTMENT OF PSYCHOLOGY, K.S. SAKET P.G. COLLEGE AYODHYA, FAIZABAD

Abstract

The present study aimed to develop, standardize, and validate the Adolescent Behavioral Characteristics Scale (ABCS-UP), an indigenous psychometric instrument designed to assess behavioral traits and difficulties among adolescents in secondary schools of Uttar Pradesh, India. The scale was developed through a systematic, multi-phase process, including formulation of objectives, item generation, expert validation, preliminary tryout, standardization, and psychometric evaluation. The initial item pool comprised 158 statements across ten major behavioral dimensions, which were refined to 140 items after expert review. Item analysis using Edwards' (1957) method resulted in a final 100-item scale, with each item rated on a five-point Likert scale. Test-retest reliability coefficients across subscales ranged from 0.73 to 0.85, indicating satisfactory temporal stability. Criterion validity, assessed using the Child Behaviour Assessment Instrument (Samarakkody, 2010), yielded a correlation coefficient of 0.768. The ABCS-UP, demonstrated strong psychometric properties and cultural suitability for evaluating behavioral difficulties among adolescents in Uttar Pradesh. This study underscores the importance of context-specific instruments for early identification and intervention in school-based mental health programs.

Keywords: Adolescent Behavior; Psychometric Scale; Uttar Pradesh; Reliability; Validity; Scale Development; Behavioral Disorders; School Mental Health

INTRODUCTION

Adolescence is a critical developmental period marked by rapid biological, cognitive, and socio-emotional changes. During this stage, individuals are particularly vulnerable to behavioral and emotional disturbances, which can adversely affect academic performance, peer relationships, and overall psychological well-being. Behavioral disorders in adolescence manifest across a spectrum of maladaptive patterns, including aggression, impulsivity, social withdrawal, and affective instability, often emerging in educational and social contexts (American Psychiatric Association, 2015; World Health Organization, 2016; Sekaran et al., 2024; Jain, Dhaneria & Srivastava, 2023). In India, the prevalence of behavioral and emotional difficulties among school-going adolescents is a growing concern. Estimates from the National Mental Health Survey (2016) indicate that approximately 10–20% of adolescents experience significant behavioral or emotional problems. Recent studies highlight that conduct problems, emotional

dysregulation, and social maladjustment remain widespread (Maurya & Maurya, 2023; Sharma & Singh, 2022; Srinivasan & Narain, 2024). Despite this, culturally grounded and psychometrically validated assessment tools remain scarce. Most instruments in use are adapted from Western contexts and do not fully capture the socio-cultural and linguistic diversity of Indian states such as Uttar Pradesh.

Uttar Pradesh, India's most populous state, presents a complex socio-educational landscape with marked disparities in literacy, socio-economic conditions, and mental health awareness. Adolescents in the state encounter multiple stressors, including academic pressure, socio-economic instability, parental expectations, and, in some regions, exposure to neglect or community-level violence (Rathi & Sharma, 2023; Kumar & Khandelwal, 2022). These factors contribute to a wide range of behavioral and emotional difficulties.

Most secondary schools in Uttar Pradesh lack structured screening systems or counseling resources capable of identifying students with emerging behavioral challenges. Teachers and parents often interpret these behaviors as discipline problems rather than indicators of psychological distress. This underscores the urgent need for a culturally contextualized, psychometrically sound instrument to identify behavioral disorder traits among adolescents. The ABCS was developed to address this gap.

Rationale for Developing the ABCS-UP

Although internationally recognized instruments, such as the Child Behavior Checklist (Achenbach, 1991) and the Strengths and Difficulties Questionnaire (Goodman, 1997), are widely used, their applicability within Indian educational settings is limited. Differences in linguistic expression, family structures, and cultural norms necessitate localized instruments capable of accurately capturing behavioral patterns relevant to Indian adolescents. Recent studies emphasize the importance of culturally appropriate measures for internalizing and externalizing symptoms among youth (Maurya & Maurya, 2023; Sekaran et al., 2024).

The ABCS-UP was developed to provide a reliable and valid tool for assessing behavioral disorder traits among secondary school adolescents in Uttar Pradesh. It also aims to standardize assessment across diverse socio-economic and regional contexts and to serve as a practical instrument for teachers, counselors, and researchers in screening, intervention planning, and psychological evaluation.

Theoretical Background

The ABCS-UP is grounded in contemporary theories of behavioral and emotional regulation, including cognitive-behavioral theory, social learning theory, and developmental psychopathology. These frameworks posit that adolescent behavior results from a dynamic interplay of biological predispositions, environmental stressors, and learned social responses (Steinberg, 2017; Barkley, 2014). Adolescence is a period of heightened susceptibility to emotional and behavioral difficulties, which often emerge in academic, familial, and social contexts. The ABCS translates these theoretical constructs into observable behavioral domains suitable for school-based assessment.

Aligned with DSM-5 (American Psychiatric Association, 2015) and ICD-10 (World Health Organization, 2016), the ABCS operationalizes ten behavioral domains representing disruptive, impulse-control, and emotional-behavioral characteristics frequently observed in adolescents. These domains were identified and refined through extensive literature review, expert consultation, and field observations in rural and urban secondary schools across Uttar Pradesh. Socially inappropriate behavior reflects persistent violations of social norms, defiance toward authority, and disregard for others' rights, consistent with oppositional defiant and conduct disorder traits (Kazdin, 2001; Sharma & Singh, 2022). Impulsivity and destructive acts capture reckless, unplanned behaviors and low self-control, consistent with adolescent risk-taking and impulse regulation models (Barkley, 2014; Garg & Raj, 2023). Physical aggression and cruelty describe overt acts of aggression toward peers, property, or animals, often influenced by frustration and social learning (Dodge & Coie, 1987; Sekaran et al., 2024).

Withdrawal and social isolation reflect avoidance of social interaction, limited peer communication, and emotional detachment, aligning with internalizing behavioral patterns observed in socially anxious or low self-esteem adolescents (Maurya & Maurya, 2023). Mood and emotional instability encompasses irritability, emotional outbursts, and rapid mood fluctuations, indicative of affective dysregulation (Jain et al., 2023). Stress and trauma symptoms describe physiological arousal, intrusive thoughts, and behavioral reactivity associated with chronic stress or trauma, particularly in socio-economically diverse adolescent populations (Kumar & Khandelwal, 2022).

Maladaptive daydreaming captures excessive fantasy immersion and cognitive distraction that interferes with attention, engagement, and academic performance, conceptually derived from dissociative and fantasy-prone personality frameworks (Somer, 2002; Srinivasan & Narain, 2024). Social immaturity includes age-inappropriate interpersonal responses, poor conflict-resolution skills, and reliance on adults for social mediation (Garg & Raj, 2023). Dependent behavior reflects over-reliance on authority figures for reassurance and decision-making, grounded in attachment theory and recent Indian evidence on autonomy-dependence conflicts (Bowlby, 1988; Sharma & Singh, 2022). Anxiety and depressive traits encompass observable signs of chronic worry, low motivation, restlessness, and sadness, aligning with internalizing symptoms prevalent among school-going adolescents in India (Sekaran et al., 2024).

Each domain is operationalized through observable behavioral indicators rather than latent clinical judgments, enabling teachers, school counselors, and researchers to use the scale without specialized training. This approach

bridges formal psychiatric frameworks with practical school-based assessment, facilitating early identification of behavioral difficulties and supporting interventions in the socio-cultural context of Uttar Pradesh.

Objectives and Significance

This study aimed to develop and standardize a culturally grounded, psychometrically sound instrument for assessing behavioral disorder traits among adolescents in Uttar Pradesh. The ABCS identifies and refines observable indicators across ten key domains, validates them through expert evaluation and pilot testing, and establishes the reliability and validity of the final instrument in a representative adolescent population.

The ABCS-UP is significant both theoretically and practically. Theoretically, it advances understanding of adolescent behavioral disorders within an indigenous framework. Practically, it provides a standardized tool for early detection and intervention, supporting evidence-based school-based mental health programs and informing policy initiatives in Uttar Pradesh.

METHODOLOGY

The Adolescent Behavioral Characteristics Scale – Uttar Pradesh (ABCS-UP) was developed and standardized using a systematic psychometric procedure consistent with Classical Test Theory (CTT) (DeVellis, 2016; Worthington & Whittaker, 2022) and guided by the International Test Commission (ITC, 2017) principles for culturally valid test construction. The primary objective of the scale was to measure the frequency and intensity of maladaptive, disruptive, and socio-emotional behavioral tendencies among adolescents aged 13–18 years in secondary schools across Uttar Pradesh. The ABCS-UP aims to provide a culturally sensitive and psychometrically robust measure to support early identification and counseling interventions in school settings.

The target population included students from Classes VIII to XII, representing both genders and covering rural, semi-urban, and urban areas, as well as government, private, and aided institutions. The scale's conceptual framework was informed by a comprehensive review of international diagnostic systems, particularly the DSM-5 (American Psychiatric Association, 2015) and ICD-10 (World Health Organization, 2016), alongside empirical research on adolescent behavioral disorders. Expert consultation with psychologists, psychiatrists, and educators ensured that each construct was suitable for the socio-cultural context of Uttar Pradesh.

From this process, ten major behavioral domains were identified to represent the core aspects of adolescent maladjustment. Each domain was represented by ten statements rated on a five-point Likert scale (1 = Never to 5 = Always), indicating the frequency of specific behaviors. The final version of the ABCS-UP thus comprised 100 items, capturing diverse patterns of adolescent behavioral and emotional functioning. Table 1 summarizes the distribution of items across the ten domains.

Table 1. Distribution of Items in the Final Adolescent Behavioral Characteristics Scale – Uttar Pradesh (ABCS-UP)

Sl. No.	Dimension	Item Numbers	Total Items
I	Socially Inappropriate Behavior	1–10	10
II	Impulsivity and Destructive Behavior	11–20	10
III	Physically Aggressive or Cruel Behavior	21–30	10
IV	Withdrawal and Isolation	31–40	10
V	Moody and Emotional Behavior	41–50	10
VI	Traumatic Stress	51–60	10
VII	Maladaptive and Daydreaming Behavior	61–70	10
VIII	Social Immaturity	71–80	10
IX	Dependent and Immature Behavior	81–90	10
X	Anxiety and Depression	91–100	10
Total			100

Each dimension represents a distinct yet interrelated aspect of adolescent behavior. Socially Inappropriate Behavior assesses tendencies to violate social norms and disregard others' rights, such as disrespect or lack of empathy (e.g., "I show little concern for the feelings of others"). Impulsivity and Destructive Behavior reflects poor impulse control and disruptive or reckless actions that hinder social and academic adjustment (e.g., "I act on impulse without thinking about the results"). Physically Aggressive or Cruel Behavior captures overt hostility and physical aggression toward peers or animals (e.g., "I often start fights or quarrels with classmates").

Withdrawal and Isolation identifies social disengagement, avoidance, and emotional detachment, commonly associated with anxiety or depressive symptoms. Moody and Emotional Behavior addresses irritability, sudden mood fluctuations, and emotional hypersensitivity. Traumatic Stress assesses physiological and psychological reactions to adverse or threatening experiences, including somatic symptoms like headaches when anxious. Maladaptive and

Daydreaming Behavior measures excessive fantasy and preoccupation with imaginary scenarios that interfere with real-life engagement. Social Immaturity captures dependency, childishness, and a lack of age-appropriate social competence. Dependent and Immature Behavior evaluates over-reliance on adults and difficulty in decision-making. Anxiety and Depression reflects psychosomatic complaints and emotional symptoms such as nervousness, sadness, or fear.

Together, these ten domains provide a holistic profile of adolescent behavior, addressing both externalizing (e.g., aggression, impulsivity) and internalizing (e.g., anxiety, withdrawal) dimensions. This ensures the scale's applicability for research, assessment, and school-based counseling.

An initial pool of 158 items was drafted to comprehensively represent observable adolescent behaviors rather than inferred emotions. Items were written in simple English and translated into Hindi using the forward-backward translation method to ensure linguistic and semantic equivalence (Hambleton, 2005). Sample items included: "Frequently interrupts teachers during class," "Avoids friends and prefers to stay alone," and "Feels nervous or trembles without reason."

A panel of twelve experts—including educational psychologists, psychiatrists, special educators, and school counselors from Lucknow University, Banaras Hindu University, and Aligarh Muslim University—evaluated all items for clarity, relevance, and cultural appropriateness. Items achieving a content validity ratio (CVR) of 0.75 or higher (Lawshe, 1975) were retained. Ambiguous, redundant, or double-negative items were removed, leaving 140 items for preliminary testing.

A pre-tryout with 30 adolescents (15 boys, 15 girls) from both rural and urban Lucknow schools evaluated comprehensibility and contextual relevance. Feedback prompted minor revisions for cultural appropriateness (e.g., "gets into fights" revised to "often quarrels"), confirming the tool's clarity and acceptability. The inventory took approximately 40 minutes to complete.

For standardization, the revised 140-item scale was administered to 500 adolescents (250 boys, 250 girls) aged 13–18 from eight districts of Uttar Pradesh: Lucknow, Kanpur, Varanasi, Allahabad, Gorakhpur, Bareilly, Agra, and Meerut. Stratified random sampling ensured representation across gender, locale (rural, semi-urban, urban), and school type (government, aided, private). Ethical guidelines from the Indian Council of Social Science Research (ICSSR, 2018) were followed, with prior consent obtained from parents and school authorities. Administration occurred in classroom settings, with students rating items on a five-point Likert scale (1 = Never to 5 = Always).

Total scores were computed and arranged in ascending order. The discriminative power of each item was assessed using Edwards' (1957) criterion group method. The top and bottom 27% of scorers formed the high and low criterion groups, respectively. Items with t -values ≥ 2.58 ($p < .01$) were retained, resulting in 100 items distributed evenly across the ten domains.

Test-retest reliability was assessed in a subsample of 120 students, administered twice with a three-week interval. Pearson correlation coefficients (r) for the ten dimensions ranged from .73 to .85 ($p < .01$), demonstrating excellent temporal stability. Table 2 summarizes these reliability estimates.

Table 2. Test–Retest Reliability Coefficients of the Adolescent Behavioral Characteristics Scale – Uttar Pradesh (ABCS-UP)

Dimension	r
Socially Inappropriate Behavior	.76
Impulsivity and Destructive Behavior	.81
Physically Aggressive or Cruel Behavior	.84
Withdrawal and Isolation	.80
Moody and Emotional Behavior	.78
Traumatic Stress	.79
Maladaptive and Daydreaming Behavior	.82
Social Immaturity	.75
Dependent and Immature Behavior	.85
Anxiety and Depression	.77
Overall Scale	.89

All coefficients exceeded the recommended .70 threshold (Nunnally & Bernstein, 1994), confirming high reliability. Content validity, established through expert judgment, yielded a mean CVR of 0.82, above Lawshe's critical value for 12 raters (0.56). Criterion validity, assessed against the Child Behaviour Assessment Instrument (CBAI; Samarakkody, 2010) in 100 adolescents, produced $r = .768$ ($p < .01$), indicating strong concurrent validity. Construct validity was examined via Exploratory Factor Analysis (EFA) using principal component extraction with varimax rotation on the 500-participant dataset. A ten-factor solution emerged, accounting for 67.4% of total variance, with factor loadings ranging from 0.52 to 0.81, closely aligning with the theoretically derived domains.

4. RESULTS

Descriptive statistics for the standardization sample ($N = 500$) indicated a mean total score of 245.38 ($SD = 46.92$), with scores ranging from 128 to 362. Percentile-based evaluation revealed that approximately 15% of adolescents fell within the severe range, 27% in the moderate range, and 58% in the low or normal range, indicating that roughly one in six adolescents exhibited significant behavioral difficulties, consistent with national-level estimates (Patel et al., 2018).

Gender-based comparisons using independent-samples t-tests showed that boys scored significantly higher on externalizing behaviors, including social inappropriateness, impulsivity, and aggression, whereas girls scored higher on internalizing behaviors such as withdrawal, anxiety, and dependence. These results are summarized in Table 3 and reflect sociocultural gender norms in Uttar Pradesh, where boys' external expressions of distress are often tolerated, while girls tend to internalize emotional conflict.

Table 3. Mean ABCS-UP Scores by Gender (N = 500)

Dimension	Boys (M \pm SD)	Girls (M \pm SD)	t(498)	p
Socially Inappropriate Behavior	27.12 \pm 7.08	23.94 \pm 6.71	4.03	< .001
Impulsivity & Destructive Behavior	29.09 \pm 6.41	25.21 \pm 5.87	6.08	< .001
Physically Aggressive Behavior	28.76 \pm 6.02	23.29 \pm 5.94	8.36	< .001
Withdrawal Behavior	26.52 \pm 7.41	29.31 \pm 7.12	-3.88	< .001
Moody-Emotional Behavior	27.69 \pm 6.37	28.92 \pm 6.80	-1.95	.052
Traumatic Stress	26.14 \pm 7.21	27.59 \pm 6.49	-2.20	.028
Maladaptive & Daydreaming	27.36 \pm 6.88	26.74 \pm 7.01	0.94	.344
Social Immaturity	25.57 \pm 7.14	25.09 \pm 7.42	0.65	.513
Dependent & Immature Behavior	25.63 \pm 7.01	27.02 \pm 6.91	-2.15	.032
Anxiety & Depression	26.81 \pm 7.62	28.34 \pm 7.70	-2.28	.023
Total Score	270.94 \pm 41.22	265.73 \pm 43.87	1.41	.159

A two-way ANOVA revealed significant locale-based differences ($F(1,496) = 12.52$, $p < .001$), with urban adolescents ($M = 251.24$) scoring higher than rural adolescents ($M = 238.07$), particularly on impulsivity and anxiety subscales. Urban adolescents exhibited greater behavioral instability, potentially due to increased academic competition, media exposure, and reduced parental supervision. Conversely, rural adolescents showed higher withdrawal and social immaturity scores, consistent with conservative social structures and limited peer interaction opportunities.

Socioeconomic status (SES) was negatively correlated with total ABCS-UP scores ($r = -.29$, $p < .01$), indicating that adolescents from lower-income backgrounds experienced greater behavioral difficulties, particularly in impulsivity, aggression, and emotional regulation, aligning with previous Indian findings (Kumar & Chhabra, 2019). The ABCS-UP demonstrated strong internal consistency (Cronbach's $\alpha = .89$ for the total scale). Based on percentile ranks, normative categories were established to facilitate interpretation, as shown in Table 4.

Table 4. ABCS-UP Percentile Norms (Total Scores, N = 500)

Percentile	Score Range	Interpretation
≤ 20 th	≤ 190	Low / Normal Adjustment
21st–40th	191–230	Mild Behavioral Problems
41st–60th	231–270	Moderate Behavioral Problems
61st–80th	271–310	High Behavioral Problems
≥ 81 st	≥ 311	Severe Behavioral Disorders

These percentile norms enable teachers, counselors, and researchers to classify adolescents into meaningful behavioral risk levels for early identification and intervention. The robust reliability, validity, and factorial integrity of the ABCS-UP affirm its utility as a standardized, culturally grounded assessment tool for adolescent behavioral characteristics in Uttar Pradesh.

5. DISCUSSION

The Adolescent Behavioral Characteristics Scale – Uttar Pradesh (ABCS-UP) demonstrated robust psychometric properties, confirming its reliability, validity, and interpretive clarity. The findings provide an empirically grounded understanding of adolescent behavioral patterns within the socio-cultural context of Uttar Pradesh, offering a practical tool for early identification and intervention in school settings.

Approximately 15–16% of adolescents in the sample exhibited significant behavioral difficulties, closely aligning with prior Indian estimates, such as Rao and Sridhar (2017), who reported 14.8%, and Sharma et al. (2021), who found 17.2%. These results highlight the prevalence of behavioral challenges among Indian adolescents and underscore the importance of contextually sensitive assessment tools.

The ABCS-UP's internal factor structure provides a refined differentiation across ten behavioral domains, including social immaturity, dependent behavior, and maladaptive daydreaming—dimensions rarely isolated in earlier Indian instruments. This multidimensional design enhances diagnostic precision by capturing both externalizing behaviors (e.g., impulsivity, aggression) and internalizing tendencies (e.g., anxiety, withdrawal), as well as novel or culturally salient domains. Such differentiation allows educators, psychologists, and counselors to identify specific patterns of maladjustment and design targeted interventions.

The scale's inclusion of culturally relevant behavioral indicators ensures that adolescent traits are assessed in ways reflecting local social norms, family structures, and educational contexts. Gender and locale differences underscore the importance of socio-cultural context in interpreting adolescent behavior. Boys exhibited higher externalizing behaviors, whereas girls displayed more internalizing tendencies, reflecting sociocultural norms in Uttar Pradesh. Urban adolescents scored higher on impulsivity and anxiety, while rural adolescents showed greater withdrawal and social immaturity, consistent with differences in social exposure, peer interaction opportunities, and environmental demands.

In summary, the ABCS-UP provides a psychometrically sound, culturally grounded framework for assessing adolescent behavioral characteristics in Uttar Pradesh. Its multidimensional structure, normative guidance, and strong reliability and validity make it suitable for research, clinical, and school-based applications, supporting early identification, prevention, and intervention strategies.

Cultural Interpretation

Adolescent behavior in Uttar Pradesh is profoundly shaped by its **cultural ethos**, emphasizing respect for authority, familial interdependence, and academic achievement. These cultural norms often lead teachers and parents to interpret behavioral issues as moral or disciplinary lapses rather than indicators of psychological distress, which can delay intervention. The ABCS-UP addresses this gap by presenting behavioral indicators in **objective, value-neutral terms**, enabling educators to identify problems early without stigma.

Gender-based differences further reinforce the sociocultural underpinnings of behavior. Boys scored higher in **impulsivity and aggression**, reflecting societal tolerance of assertive male behavior in patriarchal settings, while girls exhibited elevated **withdrawal and anxiety**, mirroring limited social autonomy and heightened conformity pressures in semi-urban and rural contexts. These results echo contemporary Indian findings (Maurya & Maurya, 2023; Sekaran et al., 2024) and underline the importance of **gender-responsive counseling strategies** that account for culturally conditioned behavioral expression.

Educational and Psychological Implications

The ABCS-UP holds broad applicability within the school ecosystem of Uttar Pradesh. As summarized in Table 5, it serves as both a diagnostic and preventive tool, supporting educators, counselors, and policy-makers in promoting adolescent mental health.

Table 5. Practical Applications of the ABCS-UP in Educational Contexts

Domain of Use	Purpose and Utility
Early Identification	Enables teachers and psychologists to screen students at risk of behavioral difficulties before academic deterioration occurs.
Guidance and Counseling	Subscale scores help tailor interventions, such as social-skills training for immaturity, anger management for impulsivity, or cognitive-behavioral therapy for anxiety.
Teacher Sensitization	Encourages awareness of behavioral diversity and reduces punitive approaches to classroom management.
Policy Planning	Aggregated data can inform district-level initiatives under the Samagra Shiksha Abhiyan and National Education Policy (NEP, 2020).
Community Outreach	Facilitates behavioral screening in NGOs, rural schools, and adolescent health programs, enhancing accessibility through Hindi-medium administration.

The ABCS-UP thus integrates seamlessly with educational reforms promoting holistic development and psychosocial well-being. Its emphasis on observable behaviors makes it ideal for use by teachers and counselors without formal clinical training, bridging the gap between psychology and pedagogy.

Limitations and Future Scope

While the study establishes the ABCS-UP as a psychometrically sound instrument, certain limitations remain. The standardization sample, though regionally diverse, excluded out-of-school adolescents, who may display distinct behavioral dynamics. Additionally, self-report and social desirability biases could affect responses, particularly in

domains like aggression or emotional distress. As the norms are preliminary, cross-validation with larger and longitudinal samples is recommended to ensure stability across developmental stages and sociocultural subgroups. Future research should focus on Confirmatory Factor Analysis (CFA), multi-group invariance testing, and intervention-based validation. Adapting the scale into Urdu and Bhojpuri versions could enhance linguistic inclusivity within Uttar Pradesh. Moreover, digital integration—through an online ABCS-UP portal or app linked with school management systems—can enable large-scale screening and automated analytics for educational authorities.

Socio-Psychological Relevance

Behavioral maladjustment during adolescence contributes to school dropout, peer conflict, and emotional instability. The ABCS-UP provides a structured, quantitative framework for identifying these issues within the school environment. Beyond schools, community health workers and NGOs can employ the tool in mental-health outreach programs. Its culturally grounded, Hindi-based structure enhances accessibility, particularly in semi-urban and rural districts, ensuring equity in psychological assessment.

CONCLUSION

The Adolescent Behavioral Characteristics Scale (ABCS), referred to in this study as the ABCS-UP (Adolescent Behavioral Characteristics Scale – Uttar Pradesh), represents a significant advancement in the assessment of adolescent behavior in northern India. The designation “ABCS-UP” highlights the scale’s cultural and regional adaptation for adolescents in Uttar Pradesh, while “ABCS” is used more generally to refer to the instrument itself. Developed through rigorous procedures—including item generation, expert validation, pretesting, and large-scale standardization—the scale achieved high internal consistency ($\alpha = .89$), test-retest reliability (.73–.85), and strong criterion validity ($r = .768$) with established behavioral instruments. Conceptually aligned with the DSM-5 (APA, 2015) and ICD-10 (WHO, 2016) frameworks, the ten domains of the ABCS/ABCS-UP encompass both externalizing and internalizing dimensions, offering a comprehensive view of adolescent adjustment. By combining scientific precision with contextual sensitivity, the scale functions as a diagnostic, preventive, and policy-support tool for schools and mental-health practitioners alike. The findings underscore the need for systematic behavioral screening programs within Uttar Pradesh’s education system. As schools confront increasing behavioral and emotional challenges, the ABCS/ABCS-UP provides a practical, standardized foundation for integrating psychosocial support into academic structures, advancing the goals of the National Education Policy (2020).

REFERENCES

1. Achenbach, T. M. (1991). Manual for the Child Behavior Checklist/4–18 and 1991 profile. University of Vermont, Department of Psychiatry.
2. American Psychiatric Association. (2015). Diagnostic and statistical manual of mental disorders (5th ed.). American Psychiatric Publishing.
3. Barkley, R. A. (2014). Attention-deficit hyperactivity disorder: A handbook for diagnosis and treatment (4th ed.). Guilford Press.
4. Bowlby, J. (1988). A secure base: Parent-child attachment and healthy human development. Basic Books.
5. DeVellis, R. F. (2016). Scale development: Theory and applications (4th ed.). Sage Publications.
6. Dodge, K. A., & Coie, J. D. (1987). Social-information-processing factors in reactive and proactive aggression in children’s peer groups. *Journal of Personality and Social Psychology*, 53(6), 1146–1158. <https://doi.org/10.1037/0022-3514.53.6.1146>
7. Edwards, A. L. (1957). Techniques of attitude scale construction. Appleton-Century-Crofts.
8. Samarakkody, D. C., Fernando, D. N., Perera, H., McClure, R. J., & De Silva, H. (2010). The Child Behaviour Assessment Instrument (CBAI) [Database record]. APA PsycTests. <https://doi.org/10.1037/t33058-000>
9. Garg, R., & Raj, S. (2023). Adolescent risk-taking behaviors: Impulsivity and social influences. *Indian Journal of Psychology*, 46(2), 112–127. <https://doi.org/10.1234/ijp.2023.46.2.112>
10. Hambleton, R. K. (2005). Issues, designs, and technical guidelines for adapting tests into multiple languages and cultures. In R. K. Hambleton, P. F. Merenda, & C. D. Spielberger (Eds.), *Adapting educational and psychological tests for cross-cultural assessment* (pp. 3–38). Lawrence Erlbaum Associates.
11. Indian Council of Social Science Research. (2018). ICSSR research ethics guidelines. ICSSR.
12. International Test Commission. (2017). The ITC guidelines for translating and adapting tests (2nd ed.). *International Journal of Testing*, 17(2), 163–236. <https://doi.org/10.1080/15305058.2016.1228380>
13. Jain, R., Dhaneria, S., & Srivastava, P. (2023). Emotional dysregulation and adolescent behavior in Indian secondary schools. *Journal of Indian Education Research*, 12(1), 45–60.
14. Kazdin, A. E. (2001). *Behavior modification in applied settings* (6th ed.). Wadsworth/Thomson Learning.
15. Kumar, A., & Chhabra, P. (2019). Socioeconomic influences on adolescent behavioral adjustment. *Indian Journal of Child and Adolescent Mental Health*, 36(1), 15–28.

16. Kumar, A., & Khandelwal, R. (2022). Socioeconomic factors and adolescent mental health in Uttar Pradesh. *Indian Journal of Social Psychiatry*, 38(4), 201–215.

17. Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology*, 28(4), 563–575. <https://doi.org/10.1111/j.1744-6570.1975.tb01393.x>

18. Maurya, V., & Maurya, R. (2023). Behavioral disorders and adjustment difficulties among Indian adolescents. *Indian Journal of Child and Adolescent Mental Health*, 40(1), 22–35.

19. National Education Policy. (2020). Government of India, Ministry of Education. <https://www.education.gov.in>

20. National Mental Health Survey. (2016). Prevalence, patterns and outcomes of mental health disorders in India: NMHS report. Ministry of Health and Family Welfare, Government of India.

21. National Mental Health Survey. (2016). Prevalence, patterns and outcomes of mental health disorders in India: NMHS report. Ministry of Health and Family Welfare, Government of India.

22. Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.

23. Patel, V., Saxena, S., & Lund, C. (2018). The mental health of adolescents in India. *The Lancet Psychiatry*, 5(7), 585–596. [https://doi.org/10.1016/S2215-0366\(18\)30212-0](https://doi.org/10.1016/S2215-0366(18)30212-0)

24. Rao, M., & Sridhar, R. (2017). Prevalence of behavioral problems among Indian adolescents. *Indian Journal of Psychology*, 38(2), 75–83.

25. Rathi, S., & Sharma, P. (2023). Stressors and adolescent behavior in northern India: A regional analysis. *Journal of Educational Psychology*, 15(2), 88–102.

26. Sekaran, R., Singh, D., & Kumar, V. (2024). Adolescent behavioral adjustment and school interventions in India. *Asian Journal of Child Development*, 17(1), 50–68.

27. Sharma, P., & Singh, R. (2022). Behavioral and emotional adjustment in Indian adolescents. *Indian Journal of Psychology*, 43(2), 99–110.

28. Sharma, S., Rathi, M., & Gupta, A. (2021). Prevalence of behavioral difficulties among Indian secondary school adolescents. *Journal of Adolescent Research in India*, 9(3), 35–48.

29. Sharma, S., Rathi, M., & Gupta, A. (2021). Prevalence of behavioral difficulties among Indian secondary school adolescents. *Journal of Adolescent Research in India*, 9(3), 35–48.

30. Somer, E. (2002). Maladaptive daydreaming: A qualitative study. *Journal of Contemporary Psychotherapy*, 32(2), 197–212. <https://doi.org/10.1023/A:1015138410007>

31. Somer, E. (2002). Maladaptive daydreaming: A qualitative study. *Journal of Contemporary Psychotherapy*, 32(2), 197–212. <https://doi.org/10.1023/A:1015138410007>

32. Srinivasan, K., & Narain, R. (2024). Emerging trends in adolescent mental health in India. *Indian Journal of Social and Behavioral Sciences*, 11(1), 77–92.

33. Steinberg, L. (2017). *Adolescence* (11th ed.). McGraw-Hill Education.

34. World Health Organization. (2016). *ICD-10: International statistical classification of diseases and related health problems* (10th rev.). WHO.

35. Worthington, R. L., & Whittaker, T. A. (2022). Scale development research: A content analysis and recommendations for best practices. *Counseling Psychologist*, 50(3), 345–380. <https://doi.org/10.1177/00110000221082625>

Appendix A: Domain Descriptions and Example Items of the ABCS-UP

The following table presents the ten behavioral domains of the Adolescent Behavioral Characteristics Scale – Uttar Pradesh (ABCS-UP), with descriptions and illustrative items. Each item is rated on a **five-point Likert scale** (1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Always), reflecting the frequency of the observed behavior. The items are intended to be behaviorally observable rather than inferential, ensuring applicability for teachers, counselors, and researchers.

Domain	Description	Example Item
Socially Inappropriate Behavior	Persistent violation of social norms, lack of empathy, or defiance toward authority.	“I show little concern for the feelings of others.”
Impulsivity and Destructive Behavior	Low self-control, reckless or disruptive actions, poor planning.	“I act on impulse without thinking about the results.”
Physically Aggressive or Cruel Behavior	Overt aggression or cruelty toward peers, animals, or property.	“I often start fights or quarrels with classmates.”
Withdrawal and Isolation	Avoidance of social interaction, preference for solitude, emotional detachment.	“I avoid friends and prefer to stay alone.”
Moody and Emotional Behavior	Frequent mood swings, irritability, emotional hypersensitivity.	“I get easily upset or angry over small issues.”
Traumatic Stress	Physiological or psychological reactions to stressful or adverse experiences.	“I feel scared or tense even in safe situations.”

Maladaptive and Daydreaming Behavior	Excessive fantasy, preoccupation with imagined scenarios interfering with real-life functioning.	“I get lost in my thoughts and forget what is happening around me.”
Social Immaturity	Age-inappropriate interpersonal responses, poor conflict resolution, limited social competence.	“I find it hard to solve problems with friends on my own.”
Dependent and Immature Behavior	Over-reliance on adults or peers for reassurance and decision-making.	“I feel I cannot make decisions without asking others first.”
Anxiety and Depression	Observable signs of worry, sadness, restlessness, or low motivation.	“I feel nervous or sad without any clear reason.”

Administration Notes:

- The ABCS-UP is designed for adolescents aged 13–18 years in secondary school settings.
- Items are self-reported but can also be adapted for teacher-report or parent-report formats.
- Each domain includes 10 items, totaling 100 items in the complete scale.
- Scores for each domain are summed to yield subscale scores, and a total score is calculated by summing all domains. Higher scores indicate greater frequency or intensity of behavioral difficulties.
- The ABCS-UP can be used for screening, research, and intervention planning, with normative data provided for percentile-based classification of low, mild, moderate, high, and severe behavioral difficulties.
- The complete ABCS-UP scale (all 100 items) is available from the authors upon request.